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Proposed Maximum Residue Limit PMRL2016-23

Metaldehyde

(publié aussi en français)

25 May 2016

This document is published by the Health Canada Pest Management Regulatory Agency. For further information, please contact:

Publications
Pest Management Regulatory Agency
Health Canada
2720 Riverside Drive
A.L. 6607 D
Ottawa, Ontario K1A 0K9

Internet: pmra.publications@hc-sc.gc.ca
healthcanada.gc.ca/pmra
Facsimile: 613-736-3758
Information Service:
1-800-267-6315 or 613-736-3799
pmra.infoserv@hc-sc.gc.ca

Canada

ISSN: 1925-0835 (print)
1925-0843 (online)

Catalogue number: H113-24/2016-23E (print version)
H113-24/2016-23E-PDF (PDF version)

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) has concluded that the addition of new uses on cabbage, lettuce, CSG8-09A, CSG13-07A, and CSG13-07G to the product label of Deadline M-Ps, containing technical grade metaldehyde, is acceptable. The specific uses approved in Canada are detailed on the label of Deadline M-Ps, *Pest Control Products Act* Registration Number 26650.

The evaluation of this metaldehyde application indicated that the end-use product has value and the human health and environmental risks associated with the new uses are acceptable.

Before registering a pesticide for food use in Canada, the PMRA must determine the quantity of residues that are likely to remain in or on the food when the pesticide is used according to label directions and that such residues will not be a concern to human health. This quantity is then legally established as a maximum residue limit (MRL). An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for metaldehyde is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Canada's Notification Authority and Enquiry Point.

The proposed MRLs are as follows.

Table 1 Proposed Maximum Residue Limits for Metaldehyde

Common Name	Residue Definition	MRL (ppm)[1]	Food Commodity
Metaldehyde	2,4,6,8-tetramethyl-1,3,5,7-tetroxocane	1.5	Leaf lettuce
		1.0	Cabbage
		0.15	Caneberries (Crop Subgroup 13-07A), low growing berries (Crop Subgroup 13-07G), head lettuce
		0.09	Tomatoes (Crop Subgroup 8-09A)

[1] ppm = parts per million

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

MRLs may vary from one country to another for a number of reasons, including differences in pesticide use patterns and the locations of the crop field trials used to generate residue chemistry data.

Table 2 compares the MRLs proposed for metaldehyde in Canada with corresponding American tolerances. American tolerances are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. Currently, there are no Codex MRLs[1] listed for metaldehyde in or on any commodity on the Codex Alimentarius Pesticide Residues in Food webpage.

Table 2 Comparison of Canadian MRLs and American Tolerances

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)
Caneberries (Crop Subgroup 13-07A)	0.15	0.15 (CSG 13-07A)
Cabbage	1.0	2.5 (CG5)
Head lettuce	0.15	1.73 (lettuce)
Leaf lettuce	1.5	1.73 (lettuce)
Low growing berries (Crop Subgroup 13-07G)	0.15	6.25 (CSG 13-07G)
Tomatoes (Crop Subgroup 8-09A)	0.09	0.24 (CSG 8-10A)

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for metaldehyde up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

[1] The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data for metaldehyde were submitted to support the domestic use of Deadline M-Ps on blackberries/raspberries, cabbage, lettuce, strawberries, and tomatoes. In addition, a processing study in treated tomatoes was reviewed to determine the potential for concentration of residues of metaldehyde into processed commodities.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for metaldehyde was based upon the submitted field trial data, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs.

Table A1 Summary of Field Trial and Processing Data Used to Support MRLs

Commodity	Application Method/ Total Application Rate (kg ai/ha)[1]	Preharvest Interval (days)	Lowest Average Field Trial Residues (ppm)	Highest Average Field Trial Residues (ppm)	Experimental Processing Factor
Caneberries (CSG13-07A): Blackberries/Raspberries	Soil treatment/4.78	0	<0.05	0.055	N/A
Cabbage	Soil treatment/3.36	19-21	<0.05	0.488	N/A
Head lettuce	Soil treatment/3.36	3	<0.05	0.076	N/A
Leaf lettuce	Soil treatment/3.36	3	<0.05	0.603	N/A
Low growing berries (CSG13-07G): Strawberries	Soil treatment/6.72	8	<0.05	0.084	N/A
Tomatoes (CSG8-09A): Tomatoes	Soil treatment/3.36	9-11	<0.05	0.082	Paste: 0.9-fold Purée: 0.9-fold

[1] kg ai/ha = kilograms of active ingredient per hectare

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of metaldehyde. Residues of metaldehyde in these crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.